

FORM PTO-1449  
(REV. 7-85)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOCKET NO.

4-30922A/SYS

APPLICATION NO.

09/734,836

APPLICANT

LUO ET AL.

FILING DATE

DECEMBER 12, 2000

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
hw	AA	5,112,756	5/12/92	Bouillant, et al.			6/1/87
hw	AB	5,380,830	1/10/95	Gonda			11/24/92
hw	AC	5,817,491	10/6/98	Yee, et al.			12/22/94
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## FOREIGN PATENT DOCUMENTS

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

hw	AR	Bender, et al., "Evidence That the Packaging Signal of Moloney Murine Leukemia Virus Extends into the gag Region," J. Virol., 61(5):1639-1646 (May 1987)
1	AS	Berkowitz, et al., "RNA Packaging," Current Topics in Microbiology and Immunology, 214:177-218
10	AT	Buchsacher, et al., "Human Immunodeficiency Virus Vectors for Inducible Expression of Foreign Genes," J. Virol., 66(5):2731-2739 (May 1992)

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AA	Burns, et al., "Vesicular Stomatitis Virus G Glycoprotein Pseudotyped Retroviral Vectors: Concentration to Very High Titer and Efficient Gene Transfer into Mammalian and Nonmammalian Cells," Proc. Natl. Acad. Sci. USA, 90:8033-8037 (September 1993)
AB	Charneau, et al., "A Second Origin of DNA Plus-Strand Synthesis Is Required for Optimal Human Immunodeficiency Virus Replication," J. Virol., 66(5):2814-2820 (May 1992)
AC	Gonda, et al., "Characterization and Molecular Cloning of a Bovine Lentivirus Related to Human Immunodeficiency Virus," Nature, 330:
AD	Kaye, et al., "cis-Acting Sequences Involved in Human Immunodeficiency Virus Type 1 RNA Packaging," J. Virol. 69(10):6588-6592 (October 1995)
AE	Malim, et al., "The HIV-1 rev trans-Activator Acts Through a Structured Target Sequence to Activate Nuclear Export of Unspliced Viral mRNA," Nature, 338:254-257 (March 16, 1989)
AF	Markowitz, et al., "A Safe Packaging Line for Gene Transfer: Separating Viral Genes on Two Different Plasmids," J. Virol., 62(4):1120-1124 (April 1988)
AG	Mitrophanous, et al., "Stable Gene Transfer to the Nervous System Using a Non-Primate Lentiviral Vector," Gene Therapy, 6:1808-1818 (1999)
AH	Miyoshi, et al., "Development of a Self-Inactivating Lentivirus Vector," J. Virol. 72(10):8150-8157 (October 1998)
AI	Oberste, et al., "Characterization of Bovine Immunodeficiency Virus rev cDNAs and Identification and Subcellular Localization of the Rev Protein," J. Virol., 67(11):6395-6405 (November 1993).
AJ	Pear, et al., "Production of High-Titer Helper-Free Retroviruses by Transient Transfection," Proc. Natl. Acad. Sci. USA, 90:8392-8396 (September 1993)
AK	Schwartz, et al., "Distinct RNA Sequences in the gag Region of Human Immunodeficiency Virus Type 1 Decrease RNA Stability and Inhibit Expression in the Absence of Rev Protein," J. Virol., 66(1):150-159 (January 1992)
AL	Yee, et al., "A General Method for the Generation of High-Titer, Pantropic Retroviral Vectors: Highly Efficient Infection of Primary Hepatocytes," Proc. Natl. Acad. Sci. USA, 91:9564-9568 (September 1994)
AM	Zhu, et al., "Phenotypic Mixing Between Human Immunodeficiency Virus and Vesicular Stomatitis Virus or Herpes Simplex Virus," J. Acq. Immune Deficiency Syndromes, 3:215-219 (1990)
AN	Zufferey, et al., "Self-Inactivating Lentivirus Vector for Safe and Efficient In Vivo Gene Delivery," J. Virol., 72(12):9873-9880 (December 1998)

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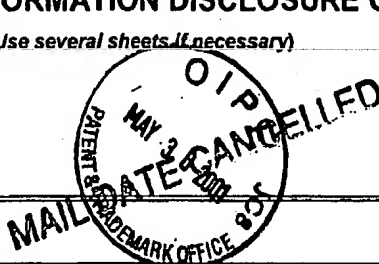
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**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent pages, Etc.)

u	AR	Braun, et al., "Molecular Cloning of Biologically Active Proviruses of Bovine Immunodeficiency-like Virus," Virology, 167:515-523 (1988)
	AS	Charneau, et al., "HIV-1 Reverse Transcription," J. Mol. Biol., 241:651-662 (1994)
b	AT	Garvey, et al., "Nucleotide Sequence and Genome Organization of Biologically Active Proviruses of the Bovine Immunodeficiency-like Virus," Virology, 175:391-409 (1990)

EXAMINER *[Signature]* DATE CONSIDERED *5/01/03*

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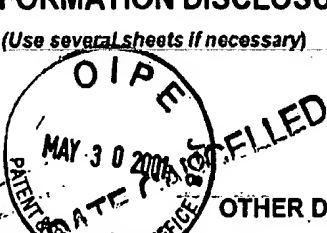
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AA	Naldini, et al., "In Vivo Gene Delivery and Stable Transduction of Nondividing Cells by a Lentiviral Vector," Science, 272:263-267 (April 12, 1996)
AB	Rigg, et al., "A Novel Human Amphotropic Packaging Cell Line: High Titer, Complement Resistance, and Improved Safety," Virology, 218:290-295 (1996)
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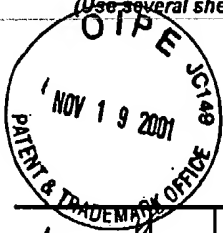
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AA	Cullen, B.R., "Retroviruses as Model Systems for the Study of Nuclear RNA Export Pathways," <u>Virology</u> , 249:203-210 (1998)
AB	Gonda, et al., "Bovine Immunodeficiency Virus: Molecular Biology and Virus-Host Interactions," <u>Virus Res.</u> , 32:155-181 (1994)
AC	International Search Report for PCT Application No. PCT/US00/33725, dated August 21, 2001
AD	Kalvatchev, et al., "Acquired Immune Dysfunction in Rabbits Experimentally Infected with an Infectious Molecular Clone of the Bovine Immunodeficiency Virus (BIV127)," <u>Viral Immunology</u> , 8(3):159-164 (1995)
AE	Kim, et al., "Minimal Requirement for a Lentivirus Vector Based on Human Immunodeficiency Virus Type 1," <u>Journal of Virology</u> , 72(1):811-816 (January 1998)
AF	Mangeot, et al., "Development of Minimal Lentivirus Vectors Derived from Simian Immunodeficiency Virus (SiVmac251) and Their Use for Gene Transfer into Human Dendritic Cells," <u>Journal of Virology</u> , 74(18):8307-8315 (September 2000)
AG	Sutton, et al., "Human Immunodeficiency Virus Type 1 Vectors Efficiently Transduce Human Hematopoietic Stem Cells," <u>Journal of Virology</u> , 72(7):5781-5788 (July 1998)
AH	Trono, D., "Lentiviral Vectors: Turning a Deadly Foe into a Therapeutic Agent," <u>Gene Therapy</u> , 7:20-23 (2000)
AI	Walder, et al., "Bovine Immunodeficiency Virus in Experimentally Infected Rabbit: Tropism for Lymphoid and Nonlymphoid Tissues," <u>Comparative Immunology, Microbiology &amp; Infectious Diseases</u> , 24:1-20 (2001)
AJ	Wu, et al., "Development of a Novel Trans-Lentiviral Vector That Affords Predictable Safety," <u>Molecular Therapy</u> , 2(1):47-55 (July 2000)
AK	Yu, et al., "Inducible Human Immunodeficiency Virus Type 1 Packaging Cell Lines," <u>Journal of Virology</u> , 70(7):4530-4537 (July 1996)
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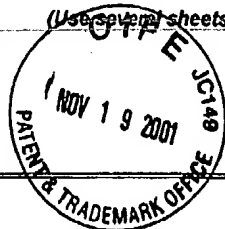
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ku	AR	Berkowitz, et al., "Construction and Molecular Analysis of Gene Transfer Systems Derived from Bovine Immunodeficiency Virus," <u>Journal of Virology</u> , 75(7):3371-3382 (April 2001)
	AS	Berkowitz, et al., "Gene Transfer Systems Derived from Visna Virus: Analysis of Virus Production and Infectivity," <u>Virology</u> , 279:116-129 (2001)
↓	AT	Buchsachner, et al., "Development of Lentiviral Vectors for Gene Therapy for Human Diseases," <u>Blood</u> , 95(8):2499-2504 (April 15, 2000)

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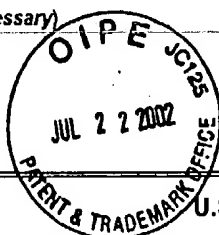
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Sheet 1 of 1

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hw	AA	6,013,516	1/11/00	Verma, et al.	—	—	10/6/95
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hw	AR	Soneoka, Y., et al., "A Transient Three-plasmid Expression System for the Production of High Titer Retroviral Vectors;" Nucleic Acids Research, 23(4):628-633 (1995)
hw	AS	Srinivasakumar, N., et al., "The Effect of Viral Regulatory Protein Expression on Gene Delivery by Human Immunodeficiency Virus Type 1 Vectors Produced in Stable Packaging Cell Lines;" Journal of Virology, 71(8):5841-5848 (August 1997)
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